



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,332	01/25/2002	Yoav Kotser	6727/1K235US1	1518

7590

05/03/2005

DARBY & DARBY P.C.
805 Third Avenue
New York, NY 10022

EXAMINER

SERRAO, RANODHI N

ART UNIT	PAPER NUMBER
----------	--------------

2141

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,332

Applicant(s)

KOTSER, YOAV

Examiner

Ranodhi Serrao

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/06/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Rekhter et al. (6.339,595).

As per claim 1, Rekhter et al. teaches a method for controlling a system of label-switched tunnels through a communication network (column 35, lines 7-15), the method comprising: pushing a signaling label onto a signaling frame at a first node in the network (column 22, lines 41-49); sending the signaling frame through the label-switched tunnels to one or more recipient nodes in the network (column 7, lines 23-49); popping the signaling label off the signaling frame at the one or more recipient nodes (column 21, lines 24-30); and responsive to the signaling label, processing the signaling frame at the one or more recipient nodes so as to eliminate loops formed by the label-switched tunnels (column 24, lines 51-57).

As per claim 2, Rekhter et al. teaches wherein the label-switched tunnels comprise multiprotocol label switching (MPLS) tunnels (column 41, lines 28-34).

As per claim 3, Rekhter et al. teaches wherein pushing the signaling label comprises inserting an agreed-upon value in the signaling label indicating that the

Art Unit: 2141

signaling frame belongs to a protocol for eliminating the loops formed by the label-switched tunnels in a transparent local area network system (TLS) (column 2, lines 8-19, column 10, lines 18-33, and column 38, line 66-column 39, line 10) and wherein popping the signaling label comprises determining that the signaling frame is to be processed in accordance with the protocol responsive to the agreed-upon value in the signaling label (column 10, lines 40-62).

As per claim 4, Rekhter et al. teaches wherein the signaling frame is generated and processed in accordance with a spanning tree protocol (STP) (column 51, lines 31-34).

As per claim 5, Rekhter et al. teaches wherein processing the signaling frame comprises setting a transmitting state for each one of the label-switched tunnels (column 42, lines 10-17).

As per claim 6, Rekhter et al. teaches wherein the label-switched tunnels are used in a transparent local area network system (TLS) (column 1, lines 46-56), and wherein for at least one of the label-switched tunnels, the transmitting state is set to a blocking state so as to prevent frames from being sent across the at least one of the label-switched tunnels, in order to eliminate a loop in the TLS (column 48, lines 20-34: wherein parameter closing serves the purpose of a blocking state).

As per claim 7, Rekhter et al. teaches wherein for at least one of the label-switched tunnels, the transmitting state is an active state so as to allow frames to be sent across the at least one of the label-switched tunnels (column 42, lines 10-17).

As per claim 8, Rekhter et al. teaches wherein sending the signaling frame comprises sending the signal frame through the label-switched tunnels that are used for carrying user data (column 22, lines 50-61).

As per claim 9, Rekhter et al. teaches wherein the label-switched tunnels are arranged to provide a virtual bridge service for carrying the user data (column 22, lines 18-31 and lines 50-61).

As per claim 10, Rekhter et al. teaches wherein the virtual bridge service comprises a transparent local-area network service (TLS) (column 1, lines 46-56).

As per claim 11, Rekhter et al. teaches wherein the TLS is one of a plurality of transparent local-area network services (TLSs) operative in the communication network (column 1, line 58-column 2, line 7), and wherein pushing the signaling label comprises pushing information identifying the signaling frame with one of the plurality of TLSs (column 38, lines 6-12), and wherein eliminating the loops comprises eliminating the loops from the one of the plurality of TLSs that corresponds to the signaling frame (column 24, lines 51-57).

As per claim 12, Rekhter et al. teaches wherein pushing the information identifying the signaling frame comprises pushing a channel label onto the signaling frame along with the signaling label (column 16, line 53-column 17, line 4), and wherein popping the signaling label comprises additionally popping the channel label off the signaling frame (column 22, lines 50-61), and wherein processing the signaling frame comprises processing the channel label together with the signaling frame (column 36, lines 53-65).

As per claim 13, Rekhter et al. teaches wherein pushing the information identifying the signaling frame comprises adding the information to the signaling label, and wherein processing the signaling frame comprises processing the information identifying the signaling frame from the signaling label together with the signaling frame (column 36, lines 53-65).

As per claim 14, Rekhter et al. teaches a communication device for operation as one of a plurality of nodes in a communication network (column 16, line 53-column 17, line 4), the device comprising: one or more ports, adapted to send and receive traffic via label-switched tunnels through the communication network (column 14, line 65-column 15, line 12 and column 22, lines 50-61); and a traffic processor which is coupled to the one or more ports, and is adapted to carry out a protocol for eliminating loops formed by the label-switched tunnels (column 24, lines 51-57), by pushing a signaling label onto a signaling frame and sending the signaling frame through at least one of the ports via the label-switched tunnels to one or more recipient nodes in the network (column 7, lines 23-49 and column 22, lines 41-49), causing the recipient nodes to pop the signaling label off the signaling frame and responsive to the signaling label, to process the signaling frame so as to eliminate the loops formed by the label-switched tunnels (column 21, lines 24-30).

As per claim 15, Rekhter et al. teaches wherein the label-switched tunnels comprise multiprotocol label switching (MPLS) tunnels (column 41, lines 28-34).

As per claim 16, Rekhter et al. teaches wherein the traffic processor is adapted to insert an agreed-upon value in the signaling label (column 2, lines 8-19, column 10,

Art Unit: 2141

lines 18-33, and column 38, line 66-column 39, line 10), and wherein the agreed-upon value is recognized by the recipient nodes so as to determine that the signaling frame is to be processed in accordance with the protocol (column 10, lines 40-62).

As per claim 17, Rekhter et al. teaches wherein the traffic processor is adapted to eliminate loops (column 24, lines 51-57) and generate signaling frames in accordance with a spanning tree protocol (column 51, lines 31-34).

As per claim 18, Rekhter et al. teaches wherein the traffic processor is adapted to set a transmitting state for each one of the label-switched tunnels (column 42, lines 10-17).

As per claim 19, Rekhter et al. teaches wherein the label-switched tunnels are used in a transparent local area network system (TLS) (column 1, lines 46-56), and wherein for at least one of the label-switched tunnels, which was found to be part of one of the loops, the transmitting state is set to a blocking state in which frames are prevented from being sent across the at least one of the label-switched tunnels, in order to eliminate a loop in the TLS (column 48, lines 20-34: wherein parameter closing serves the purpose of a blocking state).

As per claim 20, Rekhter et al. teaches wherein for at least one of the label-switched tunnels, the transmitting state is an active state in which frames are allowed to be sent across the at least one of the label-switched tunnels (column 42, lines 10-17).

As per claim 21, Rekhter et al. teaches wherein the signaling frame is sent through the label-switched tunnels that are used for carrying user data (column 22, lines 50-61).

As per claim 22, Rekhter et al. teaches wherein the label-switched tunnels are arranged to provide a virtual bridge service for carrying the user data (column 22, lines 50-61 and column 22, lines 18-31).

As per claim 23, Rekhter et al. teaches wherein the virtual bridge service comprises a transparent local-area network service (TLS) (column 1, lines 46-56).

As per claim 24, Rekhter et al. teaches wherein the TLS is one of a plurality of transparent local-area network services (TLSs) operative in the communication network (column 1, line 58-column 2, line 7), and wherein the traffic processor is adapted to identify the signaling frame with one of the plurality of TLSs (column 38, lines 6-12) so as to eliminate loops from the one of the plurality of TLSs that corresponds to the signaling frame (column 24, lines 51-57).

As per claim 25, Rekhter et al. teaches wherein the traffic processor is adapted to push a channel label onto the signaling frame containing the information identifying the signaling frame (column 16, line 53-column 17, line 4), and wherein the channel label is popped off the signaling frame by the recipient nodes for use in processing the signaling frame (column 22, lines 50-61).

As per claim 26, Rekhter et al. teaches wherein the traffic processor is adapted to add the information identifying the one of the plurality of TLSs to the signaling label, and wherein the information is used by the recipient nodes in processing the signaling frame (column 36, lines 53-65).


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Casey et al. (6,205,488) teaches an internet protocol virtual private network realization using multi-protocol label switching tunnels. Stacey et al. (6,765,921) teaches a communications network. Mahajan et al. (6,628,624) teaches a value-added features for the spanning tree protocol. Hama (20040202171) teaches a network and edge router.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-7967. The examiner can normally be reached on 8:00-5:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER